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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/648,760	08/25/2003	Robbert C. Van Der Linden	SVL920030053US1/2864P	3722
45728 7590 05/23/2007 SAWYER LAW GROUP LLP P.O. BOX 51418 PALO ALTO, CA 94303			EXAMINER JAHANGIR, KABIR U	
			ART UNIT 2109	PAPER NUMBER
			MAIL DATE 05/23/2007	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/648,760

Applicant(s)

VAN DER LINDEN ET AL.

Examiner

Kabir Jahangir

Art Unit

2109

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 25 August 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,2,4-15 and 17-38 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2,4-15 and 17-38 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 August 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 10/03, 12/04 and 04/07.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_.

### **DETAILED ACTION**

1. The instant application having Application No. 10/648760 has a total of 36 claims pending in the application; there are 4 independent claims and 24 dependent claims; claims 1-2, 4-15 and 17-38 are ready for examination by the examiner.

### **Oath/Declaration**

2. The applicant's oath/declaration has been reviewed by the examiner and is found to conform to the requirements prescribed in **37 C.F.R. 1.63**.

### **Drawings**

3. The applicant's drawings submitted are acceptable for examination purposes.

### **Information Disclosure Statement**

4. As required by **M.P.E.P. 609(C)**, the applicant's submissions of the Information Disclosure Statements dated October 24, 2003, October 27, 2003, December 28, 2004 and April 25, 2007 are acknowledged by the examiner and the cited references have been considered in the examination of the claims now pending. As required by **M.P.E.P 609 C(2)**, a copy of the PTOL-1449 initialed and dated by the examiner is attached to the instant office action.

### **Response to Amendments**

5. This communication is responsive to the Amendments filed on June 29, 2006.

Art Unit: 2109

Claims 3 and 16 are canceled and claims 1-2, 4, 14-15, 17 and 27-29 have been amended. New claims 37 and 38 have been added.

6. Applicant's arguments, with respect to the new issues of claims 1, 14 and 27, necessitated the new ground(s) of rejection presented in this office action.

### **Claim Objections**

7. Claim 6 is objected to because of the following informalities: There is a type error "note" in line 3. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 103***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 1-2, 4-7, 10-15 and 17-20, 23-32 and 34-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kanne et al. "Efficient Storage of XML Data," Universitat Mannheim, Germany June 16, 1999 (Hereinafter "Kanne") in view of Hoff US 5758361.

As per claim 1, Kanne teaches, a method for storing a structured document in its native format in a database, the method comprising: receiving a structured document and generating a hierarchical node tree comprising a plurality of nodes (see tree is generated by xml parser, in section 2.2 and plurality of nodes, in Fig. 3), wherein the node tree represents the structured document (see tree which represents the model document, in section 2.1); and storing the plurality of nodes in at least one record in the database ( see pages holds one or more records, in section 2.1). Kanne does not disclose that record comprises a node slot array, the node slot array including a plurality of node slots, each node slot including a pointer pointing to one of the plurality of nodes in the hierarchical node tree.

Hoff discloses array with plurality of slot where each slot includes a pointer corresponds to a node in the tree (see element array contains plurality of slot which represents the tree of a structured document, in Fig. 2 item # 202).

Kanne and Hoff et al. are analogous art because they are from the same field of endeavor of parsing document into tree.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the array with plurality of slot where each slot includes a pointer pointing to a node in the tree of Hoff et al. with Kanne because it would help to create hierarchical document tree efficiently (see col. 3 lines 15-40).

As per claim 2, 15 and 28, Kanne also teaches, parsing the structured document into the plurality of nodes (see XML parser is parsing the document into tree with plurality of nodes, in section 2.2); linking each of the plurality of nodes via pointers to form the hierarchical node efficiently (see parent and child are linked with pointer, in Fig. 4).

As per claim 4, 17 and 29, Kanne also teaches, storing the at least one record on at least one page (see page holds one or more records, in section 2.1).

As per claim 5, 18 and 30, Kanne teaches, a method for storing a structured document in its native format in a database. But does not describe that each page comprises a plurality of record slots, wherein each record slot includes a pointer pointing to a record stored on the page.

Hoff teaches each page comprises a plurality of record slots, wherein each record slot includes a pointer pointing to a record stored on the page (see plurality of array slot and pointer array points to content element, in Fig. 2 item # 206).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the array slot and pointer array which points to content element of Hoff et al. with Kanne because it would help to create hierarchical document tree efficiently (see col. 3 lines 15-40).

As per claim 6, 19 and 31, Kanne also teaches, wherein each node is identified by an identifier comprising a record slot number corresponding to the record slot pointing to the record in which the node resides and a node slot number corresponding to the node slot pointing to the node (see RID in proxy objects which contains record identification of subtree, in section 2.3.3).

As per claim 7, 20 and 32, Kanne teaches, wherein a node comprises a plurality of child pointers if the node has children, wherein each of the plurality of pointers points to a child node (see plurality of child pointers points to the child, in Fig. 4).

As per claim 10, 23 and 34, as set forth in claim 7, Kanne also disclose that the node further comprises an in-lined character array (see each node is a part of an array which is described by a pointer, in Fig. 4).

As per claim 11, 24 and 35, as set forth in claim 10, wherein a child pointer describes the child by pointing to the in-lined character array (see child pointer points to the child node and pointer array describes the child relation, in Fig. 4).

As per claim 12, 25 and 37 as set forth in claim 7, Kanne also teaches, wherein a child pointer describes the child and its value (see child pointer points to the child, in Fig. 4 and see the value of the child in Fig. 15).

As per claim 13, 26 and 36, as set forth in claim 1, Kanne teaches, the structured document is written in Extensible Markup Language (see XML document, in section 2.2).

10. As per claim 14, a computer readable medium encoded with a computer program for storing structured document is also rejected as set forth in claim 1.

11. As per claim 27, a system for storing structured document is also rejected as set forth in claim 1.

12. Claims 8-9, 21-22, 33 and 38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kanne et al. "Efficient Storage of XML Data," Universitat Mannheim, Germany June 16, 1999 (Hereinafter "Kanne") in view of Hoff US 5758361 and further in view of Nichani et al. US 5673334.

As per claim 8, 21 and 33, Kanne and Hoff discloses storing structured document in a database. But does not disclose that a child pointer points to a node slot pointing to the child node if the child node is a separate node.

Nichani et al. discloses a child pointer points to a node slot pointing to the child node if the child node is a separate node (see Fig. 7).

Kanne, Hoff and Nichani et al. are analogous art because they are from the same field of endeavor of parsing document into tree.



It would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate a child pointer points to a node slot pointing to the child node if the child node is a separate node of Nichani et al. with Kanne and Hoff because it would help to address the respective node of the tree (see col. 10 lines 12-28).

As per claim 9, 22 and 38, Kanne also teaches, a first record in a first page points to a record slot in a second page and a node slot in a second record if the child node is a separate node stored in the second record on the second page (see a record has partitioned into several subtrees section 3 and pointer points to the root of the second page, in Fig. 8 (b) and 8(c)).

### **Response to Arguments**

13. Applicant's arguments, with respect to claims 1-2, 4-15 and 17-36 have been considered but are moot in view of the new ground(s) of rejection. Applicant has changed the scope of the claims by amending the claims. Reason why this Office Action has made final.

### ***Conclusion***

14. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kabir Jahangir whose telephone number is 571-270-1761. The examiner can normally be reached on Mon-Fri, 7:30am-5:00pm EST every other Friday Off.

Art Unit: 2109

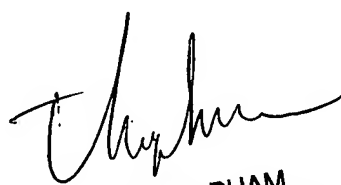
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Pierre Vital can be reached on 571-272-4215. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

KJ

KJ

May 15, 2007



THOMAS PHAM  
PRIMARY EXAMINER